

31 In this experiment, samples were prepared using PCR amplification and digestion to assay the C282Y mutation in the HFE gene. This G A mutation at nucleotide 845 creates a *Rsa* I restriction site in the HFE gene. DNA materials were isolated from peripheral blood leukocytes using standard methods. A segment of an HFE exon containing the variant site was amplified with the following primers:

HH-E4B: 5' GACCTCTTCAGTGACCACTC 3' (SEQ ID NO:1)

HC282R: 5' CTCAGGCACTCCTCTCAACC 3' (SEQ ID NO:2).

IN THE CLAIMS:

Please **amend** claims 1, 8, 10-14 as follows:

32 1. (Amended) A capillary array electrophoresis plate, comprising:
a separation channel having a cathode reservoir at one end and an anode reservoir at an opposite end; and
an injection channel having a first leg and a second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other end to the separation channel, and the second leg connected at one end to the separation channel and at the other end to a waste reservoir.

33 8. (Amended) A method of sequentially loading a plurality of different samples onto an electrophoretic separation channel, comprising:
providing a capillary array electrophoresis plate, comprising:
a separation channel having a cathode reservoir at one end and an anode reservoir at an opposite end; and
an injection channel having a first leg and a second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other end to the separation channel, and the second leg connected at one end to the separation channel and at the other end to a waste reservoir;

moving a first sample from a first sample reservoir through first leg of the injection channel and into the separation channel; and subsequently,

electrophoretically separating the first sample in the separation channel; and subsequently,

moving a second sample from a second sample reservoir through first leg of the injection channel and into the separation channel; and subsequently,

electrophoretically separating the second sample in the separation channel.

10. (Amended) A capillary array electrophoresis plate, comprising:
an array of separation channels each having a cathode reservoir at one end and an anode reservoir at an opposite end; and
an array of injection channels each having a first leg and a second leg,
wherein,

the first leg is connected at one end to a first waste reservoir and at the other end to one of the separation channels, and a first plurality of sample reservoirs are connected to the first leg along the length of the first leg; and

the second leg is connected at one end to a second waste reservoir and at the other end to one of the separation channels, and a second plurality of sample reservoirs are connected to the second leg along the length of the second leg.

11. (Amended) A method of sequentially loading four different samples onto an electrophoretic separation channel, comprising:

providing a capillary array electrophoresis plate, comprising:

an array of separation channels each having a cathode reservoir at one end and an anode reservoir at an opposite end; and

an array of injection channels each having a first leg and a second leg, wherein,

the first leg is connected at one end to a first waste reservoir and at the other end to one of the separation channels and a plurality of sample reservoirs are connected to the first leg along the length of the first leg; and

the second leg is connected at one end to a second waste reservoir and at the other end to one of the separation channels and a plurality of sample reservoirs are connected to the second leg along the length of the second leg;

moving a first sample from a first sample reservoir through first leg of the injection channel and into the separation channel; and subsequently,

electrophoretically separating the first sample in the separation channel.

12. (Amended) The method of claim 11, further comprising:

moving a second sample from a second sample reservoir through first leg of the injection channel and into the separation channel; and subsequently,

electrophoretically separating the second sample in the separation channel.

13. (Amended) The method of claim 12, further comprising:

moving a third sample from a third sample reservoir through second leg of the injection channel and into the separation channel; and subsequently,

electrophoretically separating the third sample in the separation channel.

14. (Amended) The method of claim 13, further comprising:

moving a fourth sample from a fourth sample reservoir through second leg of the injection channel and into the separation channel; and subsequently,

electrophoretically separating the fourth sample in the separation channel.